REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1, 3-5, 16, 18-21, and 23-37 are pending, with Claims 2, 17 and 22 cancelled, Claims 1, 16 and 21 amended, and Claims 26-37 added by the present amendment.

In the Official Action, Claims 1, 16 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wallentin (U.S. Patent No. 6,347,091) in view of Quick (U.S. Patent No. 5,673,259); Claims 2, 17 and 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wallentin and Quick in view of Applicants' prior art (APA); and Claims 3-5, 18-20 and 23-25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wallentin and Quick in view of Kumar (U.S. Patent No. 6,418,148).

Applicants acknowledge with appreciation the personal interview conducted between the Examiner and Applicants' representative on June 15, 2006, as well as the telephonic interview between the Examiner and Applicants' representative on July 9, 2006. During both of these interviews, the Examiner indicated that amending the independent claims to recite features corresponding to steps 29 and 31 of Figure 5 would overcome the art of record because the art of record fails to disclose or suggest a base station configured to measure an uplink interference level and a downlink transmission power level, and then notifying these measured values and thresholds to a mobile for a follow on comparison. The Examiner also acknowledged that none of the art of record discloses the timer function shown on Figure 4 of Applicants' originally filed specification.

Claims 1, 16 and 21 are amended to recite features corresponding to steps 29 and 31 of Figure 5. Claims 2, 17 and 22 are cancelled. New Claims 26-37 correspond to previously examined Claims 1, 3-5, 16, 18-21, and 25, albeit amended to recite features corresponding to steps 10, 13 and 33 of Figure 4. No new matter is added.

Briefly recapitulating, amended Claim 1 is directed to a traffic control method for mobile data communications in a mobile communication system of a scheme using spread signals including CDMA, where two types of communication channels including a common channel and a plurality of individual channels are provided such that the common channel is set to be used by a plurality of users together and each individual channel is set to be used exclusively by one user. The method includes carrying out a communication using the common channel, between a mobile radio terminal and a radio base station; receiving at the radio base station an indication that the mobile radio terminal has detected an increase or a decrease of data traffic during the communication; and measuring, at the radio base station, an uplink reception interference level and a downlink transmission power level, and relaying the uplink reception interference level and the downlink transmission power level, along with respective uplink and downlink thresholds, to the mobile radio terminal. The method also includes carrying out an admission judgment for a shift from the common channel to the individual channel at the radio base station. The admission judgment includes receiving from the mobile radio terminal a determination of whether or not the uplink reception interference level and the downlink transmission power level are greater than the respective uplink and downlink thresholds. The method also includes shifting from the communication using the common channel to the communication using the individual channel between the mobile radio terminal and the radio base station, when an admission of the shift is possible. Claims 16 and 21 are directed to a corresponding base station and mobile terminal apparatus.

New Claim 26 is directed to a traffic control method for mobile data communications in a mobile communication system of a scheme using spread signals including CDMA, where two types of communication channels including a common channel and a plurality of individual channels are provided such that the common channel is set to be used by a plurality of users together and each individual channel is set to be used exclusively by one

use. The method includes carrying out a communication using the common channel, between a mobile radio terminal and a radio base station; receiving at the radio base station an indication that the mobile radio terminal has detected an increase or a decrease of data traffic during the communication; and carrying out an admission judgment for a shift from the common channel to the individual channel at the radio base station. The admission judgment includes determining whether or not the uplink reception interference level and the downlink transmission power level are greater than the respective uplink and downlink thresholds. The method also includes relaying the admission judgment to the mobile radio terminal; and shifting from the communication using the common channel to the communication using the individual channel between the mobile radio terminal and the radio base station, when an admission of the shift is possible. The steps of carrying out an admission judgment, relaying and shifting are repeated upon receipt from the mobile radio terminal of a request to shift, the request to shift being transmitted by the mobile radio terminal a predetermined time after the mobile radio terminal receives a negative admission judgment. The predetermined time is set by a timer in the mobile radio terminal. New Claims 31 and 34 are directed to corresponding base station and mobile terminal apparatus.

Wallentin describes a mobile communications control method where the state of a connection is used to specify one of plural different types of radio channels bearing the connection over the radio interface. The connection is dynamically adapted to an optimal state based on one or more conditions relating to the connection. Based on a predicted parameter value, an optimal connection state is determined and implemented. If the predicted parameter value changes later in the connection, another connection state may be dynamically selected that is better suited in accordance with a newly predicted parameter value.[1]

[1] Wallentin, Abstract.

In particular, Wallentin describes a generic UMTS core network node 16 that includes a packet router 100, a packet buffer 102 and a packet window buffer 104.[2] As the amount of data in the packet buffer 102 buries, channels are assigned or reassigned to accommodate data flow.[3] In another embodiment, a packet arrival rate or packet density for a particular packet connection at the base station is used to predict future packet flow. Other parameters such as connection bit rate, the current number of idle devices like receivers in each base station, the current of idle spreading codes, etc., may also be used to determine a predicted packet flow. Depending on the newly predicted packet flow, the selected channel type and/or mobility management scheme may be changed several times for a connection.[4]

In another embodiment of Wallentin, after a last amount of data to be sent is transmitted (e.g., the base station transmit queue is empty), a predefined time period is monitored. If a new data packet is not received at the end of that predetermined time period, the dedicated channel is released and a new shared channel is allocated to the connection.[5]

Quick describes a mobile radio communications system having an ability to switch from a random access channel to a dedicated channel when bandwidth demands exceed a first threshold and switching from the dedicated channel to the random access channel when the bandwidth demand drops below a second threshold.[6] With reference to Figure 3, Quick describes a processor 302 located in switching station 110 which may be provided and a control switching between the dedicated channel 214 and the random access channel 208. Typically, a switching station 110 collects communications information 306a through 306n from the respective base station units 108a through 108n. The bandwidth demand, which is included in communications information 306a to 306n is then used by the processor 302 to determine when switching between the dedicated channel 214 and random access channel

[2] Wallentin, column 7, lines 10-22.
[3] Wallentin, column 7, line 63 through column 8, line 14.
[4] Wallentin, column 9, lines 12-27.
[5] Wallentin, column 10, lines 1-17.
[6] Quick, Abstract.

208 is appropriate for each mobile station associated with base stations 108a through 108n. Alternatively, processor 302 may determine if all of the mobile stations are to switch simultaneously from dedicated channel 214 to random access channel 208 and vice versa.[7]

However, as acknowledged during the interview of June 15, 2006, Wallentin and Quick each fail to disclose or suggest amended Claim 1's steps of

- measuring, at the radio base station, an uplink reception interference level and a downlink transmission power level, and relaying the uplink reception interference level and the downlink transmission power level, along with respective uplink and downlink thresholds, to the mobile radio terminal;
- carrying out an admission judgment for a shift from the common channel to the individual channel at the radio base station, said admission judgment including receiving from the mobile radio terminal a determination of whether or not the uplink reception interference level and the downlink transmission power level are greater than the respective uplink and downlink thresholds; and
- shifting from the communication using the common channel to the communication using the individual channel between the mobile radio terminal and the radio base station, when an admission of the shift is possible.

Wallentin and Quick similarly fail to disclose or suggest all the features of amended Claims 16 and 21.

Wallentin and Quick also each fail to disclose or suggest new Claim 26's step of

- [repeating] said steps of carrying out an admission judgment, relaying and shifting .... upon receipt from the mobile radio terminal of a request to shift, said request to shift transmitted by the mobile radio terminal a predetermined time after the mobile radio terminal receives a negative admission judgment, said predetermined time being set by a timer in the mobile radio terminal.

Wallentin and Quick similarly fail to disclose or suggest all the features of new Claims 31 and 34.

Kumar does not cure the deficiencies of Wallentin and Quick.

MPEP §706.02(j) notes that to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the

[7] Quick, column 11, lines 5-19.

art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Also, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck,* 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Without addressing the first two prongs of the test of obviousness, Applicants submit that the Official Action does not present a *prima facie* case of obviousness because both Wallentin, Quick and Kumar fail to disclose all the features of Applicants' claimed invention.

Accordingly, in view of the present amendment and in light of the previous discussion, Applicant respectfully submits that the present application is in condition for allowance and respectfully requests an early and favorable action to that effect.

Respectfully submitted,

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